

What is claimed is:

1. A method for adapting a service operation of a service station, said method comprising:

determining at least one normal service parameter;

5 assigning at least one event related to said at least one normal service parameter;

tracking a number of occurrences of said at least one event; and

modifying a level of servicing performed during said service operation in response
to said tracked number of occurrences of said at least one event by
deviating from said at least one normal service parameter.

- 10 2. The method according to claim 1, further comprising:

performing a first set of servicing operations in response to said tracked number of
occurrences of said at least one event being less than or equal to a first
predetermined value.

- 15 3. The method according to claim 2, further comprising:

performing a second set of servicing operations in response to said tracked number
of occurrences of said at least one event being less than or equal to a
second predetermined value, wherein said second predetermined value is
20 greater than said first predetermined value.

4. The method according to claim 3, further comprising:

replacing said service station in response to said tracked number of occurrences of
said at least one event being greater than a third predetermined value; and
25 wherein said modifying step comprises applying a level of modification to said
service operation in response to a predetermined modification level.

5. The method according to claim 3, further comprising:
performing a greater degree of service operation in response to said tracked
number of occurrences of said at least one event being less than or equal to
said second predetermined value than said tracked number of occurrences
of said at least one event being less than or equal to said first predetermined
value.

6. The method according to claim 1, wherein said modifying step comprises applying
a level of modification to said service operation in response to a predetermined
modification level.

7. The method according to claim 6, additionally comprising:
performing a first set of servicing operations in response to said tracked number of
occurrences of said at least one event being less than or equal to a first
predetermined value;
performing a second set of servicing operations in response to said tracked number
of occurrences of said at least one event being less than or equal to a
second predetermined value, wherein said second predetermined value is
greater than said first predetermined value; and
wherein said applying step comprises employing a table having a plurality of
predetermined service operations depending upon said tracked number of
occurrences of said at least one event.

8. The method according to claim 6, additionally comprising:
performing a first set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value;

5 performing a second set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a second predetermined value, wherein said second predetermined value is greater than said first predetermined value; and

wherein said applying step comprises employing an age factor to said normal
10 service parameter based upon the tracked number of occurrences of said at least one event, wherein said age factor varies according to the tracked number of occurrences of said at least one event.

9. The method according to claim 1, additionally comprising:

15 performing a first set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value;

performing a second set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a
20 second predetermined value, wherein said second predetermined value is greater than said first predetermined value; and

wherein said event tracking step comprises tracking a number of printhead spits into said service station.

10. The method according to claim 1, further comprising:
performing a first set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value;
5 performing a second set of servicing operations in response to said tracked number of occurrences of said at least one event being less than or equal to a second predetermined value, wherein said second predetermined value is greater than said first predetermined value;
printing a diagnostic plot by attempting to print onto a medium with each nozzle
10 of a printhead;
performing a servicing operation on said printhead in response to at least one of said nozzles misfiring;
printing another diagnostic plot by attempting to print onto said medium with each nozzle of said printhead;
15 modifying said servicing operation in response to at least one of said nozzles misfiring; and
performing said modified servicing operation on said printhead.

11. An apparatus for adapting a service operation of a service station, comprising:
20 a controller configured to determine at least one normal service parameter and assignment of at least one event related to said at least one normal service parameter;
a counter operable to track a number of occurrences of said at least one event;
wherein said controller is operable to modify a level of servicing performed during
25 said service operation in response to said tracked number of occurrences of said at least one event by deviating from said at least one normal service parameter.

12. The apparatus for adapting a service operation according to claim 11, wherein said controller is operable to control said service station to perform a first set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value.

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13. The apparatus for adapting a service operation according to claim 12, wherein said controller is operable to control said service station to perform a second set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a second predetermined value, wherein
10 said second predetermined value is greater than said first predetermined value.

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14. The apparatus for adapting a service operation according to claim 13, wherein said controller is operable to control said service station to perform a greater degree of servicing operations in response to said tracked number of occurrences of said at
15 least one event being less than or equal to said second predetermined value than said tracked number of occurrences of said at least one event being less than or equal to said first predetermined value.

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15. The apparatus for adapting a service operation according to claim 11, wherein said
20 controller is operable to apply a level of modification to said service operation in response to a predetermined modification level.

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16. The apparatus for adapting a service operation according to claim 15, wherein said controller is operable to employ a table having a plurality of predetermined service operations depending upon said tracked number of occurrences of said at least one event; and wherein said controller is operable to control said service station to perform a first set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value.

17. The apparatus for adapting a service parameter according to claim 15, wherein said controller is operable to employ an age factor to the normal service operation based upon the tracked number of occurrences of said at least one event, wherein said age factor varies according to the tracked number of occurrences of said at least one event and wherein said controller is operable to control said service station to perform a first set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value.

18. A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method for adapting a service operation of a service station according to a calculated age of said service station, said one or more computer programs comprising a set of instructions for:

determining at least one normal service parameter;

assigning at least one event related to said at least one normal service parameter;

tracking an occurrence of said at least one event; and

modifying a level of servicing performed during said service operation in response to said tracked number of occurrences of said at least one event by deviating from said at least one normal service parameter; and

wherein the modifying includes increasing or decreasing the level of servicing based in part on an estimated age of the service station.

19. The computer readable storage medium according to claim 18, said one or more computer programs further comprising a set of instructions for:

performing a first set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a first predetermined value.

20. The computer readable storage medium according to claim 19, said one or more computer programs further comprising a set of instructions for:

performing a second set of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to a second predetermined value, wherein said second predetermined value is greater than said first predetermined value.

21. The computer readable storage medium according to claim 20, said one or more computer programs further comprising a set of instructions for:

performing a greater degree of service operations in response to said tracked number of occurrences of said at least one event being less than or equal to said second predetermined value than said tracked number of occurrences of said at least one event being less than or equal to said first predetermined value.

22. The computer readable storage medium according to claim 21, said one or more computer programs further comprising a set of instructions for:

printing a diagnostic plot by attempting to print onto a medium with each nozzle of a printhead;

5 performing a servicing operation on said printhead in response to at least one of said nozzles misfiring;

printing another diagnostic plot by attempting to print onto said medium with each nozzle of said printhead;

10 modifying said servicing operation in response to at least one of said nozzles misfiring; and

performing said modified servicing operation on said printhead.

23. The computer readable storage medium according to claim 18, said one or more computer programs further comprising a set of instructions for:

15 applying a level of modification to said service operation in response to a predetermined modification level.

24. The computer readable storage medium according to claim 18, said one or more computer programs further comprising a set of instructions for:

20 calculating an age factor for the service operation; and

performing the service operation at least in part according to the age factor.